## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (currently amended) A compound of formula (1):

$$R^4$$
 $R^5$ 
 $R^5$ 
 $R^2$ 
 $R^3$ 
 $R^3$ 
 $R^4$ 
 $R^5$ 
 $R^4$ 
 $R^4$ 

wherein:

 $R^4$  and  $R^5$  together are either  $-S-C(R^6)=C(R^7)$ - or  $-C(R^7)=C(R^6)$ -S-;

R<sup>6</sup> and R<sup>7</sup> are independently selected from hydrogen, halo, nitro, cyano, hydroxy, fluoromethyl, difluoromethyl, trifluoromethyl, trifluoromethoxy, carboxy, carbamoyl, (1-4C)alkyl, (2-4C)alkenyl, (2-4C)alkynyl, (1-4C)alkoxy and (1-4C)alkanoyl;

A is phenylene or heteroarylene;

n is 0, 1 or 2;

 $R^1$  is independently selected from halo, nitro, cyano, hydroxy, carboxy, carbamoyl, N-(1-4C)alkylcarbamoyl, N-(1-4C)alkyl) $_2$ carbamoyl, sulphamoyl, N-(1-4C)alkylsulphamoyl, N-(1-4C)alkyl) $_2$ sulphamoyl,  $-S(O)_b(1-4C)$ alkyl (wherein b is 0,1,or 2),  $-OS(O)_2(1-4C)$ alkyl, (1-4C)alkyl, (2-4C)alkynyl, (1-4C)alkoxy, (1-4C)alkanoyl, (1-4C)alkanoyloxy, hydroxy(1-4C)alkyl, fluoromethyl, difluoromethyl, trifluoromethyl, trifluoromethoxy and  $-NHSO_2(1-4C)$ alkyl;

or, when n is 2, the two R<sup>1</sup> groups, together with the carbon atoms of A to which they are attached, may form a 4 to 7 membered saturated ring, optionally containing 1 or 2 heteroatoms independently selected from O, S and N, and optionally being substituted by one or two methyl groups;

one of R<sup>2</sup> and R<sup>3</sup> is selected from R<sub>N</sub>a, and the other is selected from R<sub>N</sub>b;

R<sub>N</sub>a: (1-3C)alkyl, halo(1-3C)alkyl, dihalo(1-3)alkyl, trifluoromethyl, hydroxy(1-3C)alkyl, dihydroxy(2-3C)alkyl, cyano(1-3C)alkyl (optionally substituted on alkyl with hydroxy), methoxymethyl, ethoxymethyl, methoxyethyl, methoxymethoxymethyl, dimethoxyethyl, (hydroxy)(methoxy)ethyl, 5- and 6-membered acetals and mono- and di-methyl derivatives

thereof, (amino)(hydroxy)(2-3C)alkyl, (aminocarbonyl)(hydroxy)(2-3C)alkyl, (methylaminocarbonyl)(hydroxy)(2-3C)alkyl, (dimethylaminocarbonyl)(hydroxy)(2-3C)alkyl, (methylcarbonylamino)(hydroxy)(2-3C)alkyl,  $(methylS(O)_p-)(hydroxy)(2-3C)alkyl$  (wherein p is 0, 1 or 2);

R<sub>N</sub>b: (1-4C)alkyl, halo(1-4C)alkyl, dihalo(1-4C)alkyl, trifluoromethyl, hydroxy(1-4C)alkyl, dihydroxy(2-4C)alkyl, trihydroxy(3-4C)alkyl, cyano(1-4C)alkyl (optionally substituted on alkyl with hydroxy), (1-4C)alkoxy(1-4C)alkyl, (1-4C)alkoxy(1-4C)alkoxy(1-4C)alkyl, di[(1-4C)alkoxy](2-4C)alkyl, (hydroxy)[(1-4C)alkoxy](2-4C)alkyl, 5- and 6-membered acetals and mono- and di-methyl derivatives thereof, (amino)(hydroxy)(2-4C)alkyl, (aminocarbonyl)(hydroxy)(2-4C)alkyl, ((1-4C)alkylaminocarbonyl)(hydroxy)(2-4C)alkyl, (di(1-4C)alkylaminocarbonyl)(hydroxy)(2-4C)alkyl, ((1-4C)alkylaminocarbonyl)(hydroxy)(2-4C)alkyl, ((1-4C)alkylS(O)<sub>p</sub>-)(hydroxy)(2-4C)alkyl (wherein p is 0, 1 or 2);

wherein any alkyl or alkoxy group within any group in  $R_NA$  and  $R_NB$  may also optionally be substituted on an available carbon atom with a hydroxy group (provided that said carbon atom is not already substituted by a group linked by a heteroatom); provided that if  $R^2$  is (1-3C)alkyl or (1-4C)alkyl then  $R^3$  is not (1-4C)alkyl or (1-3C)alkyl;

- 2. (original) A compound of formula (1) as claimed in Claim 1, or a pharmaceutically acceptable salt or pro-drug thereof, wherein  $R^2$  is selected from  $R_N$ a, and  $R^3$  is selected from  $R_N$ b, wherein  $R_N$ a and  $R_N$ b are as defined in Claim 1.
- 3. (cancelled)
- 4. (previously presented) A compound of formula (1) as claimed in Claim 1, or a pharmaceutically acceptable salt or pro-drug thereof, wherein n is 0.

or a pharmaceutically acceptable salt or pro-drug thereof.

5. (previously presented) A compound of formula (1) as claimed in Claim 1, or a pharmaceutically acceptable salt or pro-drug thereof, wherein R<sup>6</sup> and R<sup>7</sup> are independently selected from hydrogen and halo.

- 6. (previously presented) A compound of formula (1) as claimed in Claim 1, or a pharmaceutically acceptable salt or pro-drug thereof, wherein R<sup>6</sup> and R<sup>7</sup> are independently selected from hydrogen and chloro.
- 7. (previously presented) A compound of formula (1) as claimed in Claim 1, or a pharmaceutically acceptable salt or pro-drug thereof, wherein  $R_N$ a is selected from (1-4C)alkyl, hydroxy(1-4C)alkyl, and (1-4C)alkoxy(1-4C)alkyl.
- 8. (currently amended) A compound of formula (1) as claimed in Claim 1, or a pharmaceutically acceptable salt or pro-drug thereof, which is a compound of formula (1A):

$$R^4$$
 $R^5$ 
 $R^5$ 
 $R^2$ 
 $R^3$ 
 $R^3$ 
 $R^4$ 
 $R^5$ 
 $R^4$ 
 $R^3$ 
 $R^4$ 
 $R^3$ 
 $R^4$ 
 $R^5$ 
 $R^4$ 
 $R^3$ 
 $R^4$ 
 $R^3$ 
 $R^4$ 
 $R^5$ 

wherein  $R^1$  to  $R^7$ , A and n are as defined in claim 1.

- 9. (previously presented) A pro-drug of a compound of formula (1) as claimed in Claim 1, which pro-drug is an in-vivo hydrolysable ester.
- 10. (original) A pharmaceutical composition which comprises a compound of the formula (1), or a pharmaceutically acceptable salt or in-vivo hydrolysable ester thereof, as claimed in claim 1 in association with a pharmaceutically-acceptable diluent or carrier.
- 11-15. (cancelled)
- 16. (withdrawn) A process for the preparation of a compound of formula (1) as claimed in claim 1, which process comprises: reacting an acid of the formula (2):

$$\mathbb{R}^4$$
 OH  $\mathbb{R}^5$   $\mathbb{N}$  O

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(2)

or an activated derivative thereof; with an amine of formula (3):

$$R^2$$
 $R^3$ 
 $H_2N$ 
 $A$ 
 $(R^1)_r$ 

and thereafter if necessary:

- i) converting a compound of the formula (1) into another compound of the formula (1);
- ii) removing any protecting groups;
- iii) forming a pharmaceutically acceptable salt or in vivo hydrolysable ester.
- 17. (previously presented) A compound of formula (1), or a pharmaceutically acceptable salt or pro-drug thereof, selected from:

2-chloro-*N*-{(1*R*,2*R*)-1-[(methoxyacetyl)(methyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;

2-chloro-N-{(1R,2R)-1-[[3-hydroxy-2-(hydroxymethyl)propanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-6H-thieno[2,3-b]pyrrole-5-carboxamide;

ethyl  $3-[((1R,2R)-2-\{[(2-chloro-6H-thieno[2,3-b]pyrrol-5-yl)carbonyl]amino}-2,3-dihydro-1H-inden-1-yl)(methyl)amino]-3-oxopropanoate;$ 

 $2-[((1R,2R)-2-\{[(2-chloro-6H-thieno[2,3-b]pyrrol-5-yl)carbonyl]amino}-2,3-dihydro-1H-inden-1-yl)(methyl)amino]-2-oxoethyl acetate;$ 

2-chloro-*N*-{(1*R*,2*R*)-1-[glycoloyl(methyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-b]pyrrole-5-carboxamide;

2-chloro-*N*-{(1*R*,2*R*)-1-[glyceroyl(methyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-b]pyrrole-5-carboxamide;

2-chloro-N-{(1R,2R)-1-[[(2S)-2,3-dihydroxypropanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-6H-thieno[2,3-b]pyrrole-5-carboxamide;

2-chloro-N-{(1R,2R)-1-[[(2R)-2,3-dihydroxypropanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-6H-thieno[2,3-b]pyrrole-5-carboxamide;

2-chloro-*N*-{(1*R*,2*R*)-1-[(3-hydroxypropanoyl)(methyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;

- 2-chloro-*N*-{(1*R*,2*R*)-1-[glycoloyl(2-hydroxyethyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- 2-chloro-N-{(1R,2R)-1-[[(2R)-2-hydroxypropanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-6H-thieno[2,3-h]pyrrole-5-carboxamide;
- 2-chloro-*N*-{(1*R*,2*R*)-1-[[(2*S*)-2-hydroxypropanoyl](methyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-N-{(1R,2R)-1-[[(2R)-2,3-dihydroxypropanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-4H-thieno[3,2-b]pyrrole-5-carboxamide
- 2,3-dichloro-N-{(1R,2R)-1-[[(2S)-2,3-dihydroxypropanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-4H-thieno[3,2-b]pyrrole-5-carboxamide;
- $(2S)-N^1-((1R,2R)-2-\{[(2-\text{chloro}-6H-\text{thieno}[2,3-b]pyrrol-5-yl)\text{carbonyl}]$ amino $\}-2,3-\text{dihydro}-1H-\text{inden-1-yl}-2-\text{hydroxy}-N^1-\text{methylsuccinamide};$
- $(2S)-N^1-((1R,2R)-2-\{[(2,3-\text{dichloro}-4H-\text{thieno}[3,2-b]pyrrol-5-yl)\text{carbonyl}]$ amino}-2,3-dihydro-1*H*-inden-1-yl)-2-hydroxy- $N^1$ -methylsuccinamide;
- 2,3-dichloro-*N*-{(1*R*,2*R*)-1-[[(2*S*)-2-hydroxybutanoyl](methyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-N-{(1R,2R)-1-[[(2S)-2-hydroxy-3-methylbutanoyl](methyl) amino]-2,3-dihydro-1H-inden-2-yl}-4H-thieno[3,2-b]pyrrole-5-carboxamide;
- 2,3-dichloro-N-{(1R,2R)-1-[[(2S)-4-(1,3-dioxo-1,3-dihydro-2H-isoindol-2-yl)-2-hydroxy butanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-4H-thieno[3,2-B]pyrrole-5-carboxamide;
- 2,3-dichloro-N-{(1R,2R)-1-[[(2R)-2-hydroxy-3-(methylthio)propanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-4H-thieno[3,2-b]pyrrole-5-carboxamide;
- tert-butyl  $\{(2S)-3-[((1R,2R)-2-\{[(2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dihydro-1H-inden-1-yl)(methyl)amino}-2-hydroxy-3-oxopropyl<math>\{(2S)-3-[((1R,2R)-2-\{[(2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dihydro-1H-inden-1-yl)(methyl)amino}-2-hydroxy-3-oxopropyl<math>\{(2S)-3-[((1R,2R)-2-\{[(2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonylamino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonylamino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonylamino}-2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonylamino}-2,3-dichloro-4-yl)$
- 2,3-dichloro-*N*-{(1*R*,2*R*)-1-[[(2*S*)-3-cyano-2-hydroxypropanoyl](methyl) amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- *N*-{(1*R*,2*R*)-1-[(*N*-acetylseryl)(methyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2-chloro-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- *N*-{(1*R*,2*R*)-1-[(*N*-acetylseryl)(methyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-*N*-{(1*R*,2*R*)-1-[methyl(L-seryl)amino]-2,3-dihydro-1*H*-inden-2-yl}-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide hydrochloride;
- 2-chloro-*N*-{(1*R*,2*R*)-1-[methyl(L-seryl)amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-b]pyrrole-5-carboxamide hydrochloride;

- $(2S)-N^1-((1R,2R)-2-\{[(2-\text{chloro}-6H-\text{thieno}[2,3-b]pyrrol-5-yl)\text{carbonyl}]$ amino $\}-2,3-\text{dihydro}-1H-\text{inden-1-yl}-2-\text{hydroxy}-N^1-\text{methylpentanediamide};$
- $(2S)-N^1-((1R,2R)-2-\{[(2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]amino\}-2,3-dihydro-1H-inden-1-yl)-2-hydroxy-<math>N^1$ -methylpentanediamide;
- 2-chloro-*N*-{(1*R*,2*R*)-1-[[(2*S*)-2-hydroxy-3-methoxypropanoyl](methyl) amino]-2,3-dihydro-1*H*-inden-2-yl}-6*H*-thieno[2,3-*b*]pyrrole-5-carboxamide;
- 2,3-dichloro-N-{(1R,2R)-1-[[(2S)-2-hydroxy-3-methoxypropanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-4H-thieno[3,2-b]pyrrole-5-carboxamide;
- 2,3-dichloro-N-{(1R,2R)-1-[[(2R)-2-hydroxy-3-(methylsulfonyl)propanoyl](methyl)amino]-2,3-dihydro-1H-inden-2-yl}-4H-thieno[3,2-B]pyrrole-5-carboxamide;
- *N*-{(1*R*,2*R*)-1-[[(2*S*)-3-amino-2-hydroxypropanoyl](methyl)amino]-2,3-dihydro-1*H*-inden-2-yl}-2,3-dichloro-4*H*-thieno[3,2-*b*]pyrrole-5-carboxamide hydrochloride;
- $(2S)-N^1-((1R,2R)-2-\{[(2,3-\text{dichloro}-4H-\text{thieno}[3,2-b]pyrrol-5-yl)\text{carbonyl}]$ amino $\}-2,3-\text{dihydro}-1H-\text{inden}-1-yl)-2-\text{hydroxy}-N^1,N^4-\text{dimethylsuccinamide};$
- $(2S)-N^1-((1R,2R)-2-\{[(2,3-dichloro-4H-thieno[3,2-b]pyrrol-5-yl)carbonyl]$  amino $\}-2,3-dihydro-1H-inden-1-yl)-2-hydroxy-<math>N^1,N^4,N^4$ -trimethylsuccinamide;
- 2-chloro-N-{(1R,2R)-1-[glyceroyl(2-hydroxyethyl)amino]-2,3-dihydro-1H-inden-2-yl}-6H-thieno[2,3-b]pyrrole-5-carboxamide;
- 2-chloro-N-{(1R,2R)-1-[[(2R)-2,3-dihydroxypropanoyl](2-hydroxyethyl)amino]-2,3-dihydro-1H-inden-2-yl}-6H-thieno[2,3-b]pyrrole-5-carboxamide;
- 2-chloro-N-{(1R,2R)-1-[[(2S)-2,3-dihydroxypropanoyl](2-hydroxyethyl)amino]-2,3-dihydro-1H-inden-2-yl}-6H-thieno[2,3-b]pyrrole-5-carboxamide.
- 18. (withdrawn) A method of producing a glycogen phosphorylase inhibitory effect in a warm-blooded animal, such as man, in need of such treatment which comprises administering to said animal an effective amount of a compound of formula (1) as claimed in claim 1.
- 19. (withdrawn) A method of treating type 2 diabetes, insulin resistance, syndrome X, hyperinsulinaemia, hyperglucagonaemia, cardiac ischaemia or obesity in a warm-blooded animal, such as man, in need of such treatment which comprises administering to said animal an effective amount of a compound of formula (1) as claimed in claim 1.

20. (withdrawn) A method of treating type 2 diabetes in a warm-blooded animal, such as man, in need of such treatment which comprises administering to said animal an effective amount of a compound of formula (1) as claimed in claim 1.